Acquisition Reform Success Story
Cheyenne Mountain Upgrade
Integrated Tactical Warning and Attack Assessment (ITW/AA)

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Contractors: E-Systems, GTE, Kaman, Harris, Loral, Martin, TRW

Program Description

The CMC program office acquires, tests, and sustains evolutionary communications and information processing systems. Specifically, the CMC SPO directs the completion of the Cheyenne Mountain Upgrade program which provides improvements for North American defense and global space vigilance; increases the reliability of missile, space, and air warning; enables National Command Authorities to quickly formulate viable threat responses; and supports 15 major command, control, communications, computer, and intelligence (C^4I) systems and associated training systems worth over $8.5 Billion at 27 sites on five continents. CMU is scheduled to be completed by 1999.

How The Integrated Test Schedule Effort Made a Difference

The Integrated Test Schedule Process that replaced an untenable test approach, is largely credited with restoring successful CMU program execution, and demonstrates the power of community-wide cooperation.

In the 1992-1993 time period, the CMC SPO began a series of major test phases, including tests of Missile Warning Mission components. However, it soon became evident that the CMC SPO was not fully prepared for the immense complexities of testing and integrating multiple large acquisition systems into an operational C^4I system of systems. The CMC SPO was directly competing for test resources with on-going maintenance as well as operational mission testing by the using community. In addition, acquisition and maintenance tests had to be scheduled around the operational missions. Also, the CMC SPO painfully discovered that, of an 8-hour test shift, 6 to 7 hours were required to set-up and tear down the test configuration.

The CMC SPO devised and promoted a new group, the Systems Engineering, Integration, and Test (SEIT) team that became the single focal point for all test activities from the operational, maintenance, and acquisition communities. This significant process reform had two major effects: 1) The needs of <u>all</u> organizations were optimally interleaved and prioritized, permitting the creation and use of truly effective and more detailed integrated schedules. 2) Each test was made more effective by satisfying community-wide test objectives whenever possible, thereby eliminating redundant tests.

Measure	Improvement
Test Success Rate	12%
Available Test Time	15%

The Bottom Line

In the 12 months ending June 1996, the CMU program enjoyed a 12% improvement in the test success rate and a 15% improvement in the use of available test time. Also, it is estimated that 1000 test shifts will be eliminated by the completion of the CMU program, with 498 of this estimate already eliminated as of 20 March 1996 (doing it ***better***). The Missile Warning Mission was operationally accepted 78 days ahead of schedule (doing it ***faster***), and SPADOC experienced a $2.5M underrun (doing it ***cheaper***). The end result of these process improvements may in fact be that the CMU program can complete its final testing and delivery up to one year earlier than planned.

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